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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,572	11/02/2001	Malcolm M. Smith	062891.0600	9167

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EXAMINER

JAMAL, ALEXANDER

ART UNIT PAPER NUMBER

2643

DATE MAILED: 03/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/033,572

Applicant(s)

SMITH, MALCOLM M.

Examiner

Alexander Jamal

Art Unit

2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1-3,5,9-11,13,17-19,21,25-27,29,33-35,37** rejected under 35 U.S.C. 102(e) as being anticipated by Kondo (6728919).

As per **claims 1,17**, Kondo discloses a communication system in which the same data signal is sent from a first and second base station. The signals are divided into frames and are measured and manipulated on a frame by frame basis (ie. a first signal portion, a second signal portion ect.) (Col 1 line 49 to Col 2 line 17) (Col 3 lines 1-19). Signal characteristics including error rate and signal level are used to select the best received frame on a frame by frame basis.

As per **claim 9**, claim rejected as a method performed by the device of the claim 1 rejection.

As per **claim 25**, claim rejected for same reasons as claim 1 rejection. Software (on a computer readable medium) is inherent to the cellular system for the purpose of controlling the hardware.

As per **claim 33**, claim rejected for same reasons as claim 1 rejection. The wireless network comprises first network 7 (inherently comprising a gateway for the purpose of interfacing with additional networks) (Fig. 1), base station controller 6, mobile station 5, and base stations 1,3.

As per **claims 2,10,18,26,34**, the signal quality measurements of signaling from the first base station is compared to that of the second base station (Col 2 lines 55-65) and the appropriate frame (first or third signal portion) is selected.

As per **claims 3,11,19,27,35**, the quality values comprise error-detection and signal size.

As per **claims 5,13,21,29,37**, the measurements and decisions are made on a frame by frame basis (ie. between a first and second frame, and then between a third and fourth frame). The best quality frames from the received signals are chosen and re-combined.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 4,12,20,28,36** rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo (6728919) as applied to claims 1,9,17,25,33 above, and further in view of Kanerva et al. (6219550).

As per **claims 4,12,20,28,36**, Kondo discloses applicant's claims 1,9,17,25,33 as mentioned above. However, Kondo does not specify that the signal quality measurements on each set of received frames comprises an average of quality measurements of sub portions of the frames.

Kanerva discloses a system in which signal quality measurements between a mobile phone and a base station are performed. Kanerva discloses that the signal quality indicators be averaged over time (which comprises the of quality measurements of sub portions of the frames) in order to make the measurement results less sensitive to transient interference (Col 2 lines 1-24). It would have been obvious to one of ordinary skill in the art at the time of this application that the signal level measurements could be averaged for the advantage of providing greater immunity to transients.

5. **Claims 6-8,14-16,22-24,30-32,38-40** rejected under 35 U.S.C. 103(a) as being unpatentable over Kondo (6728919) as applied to claims 1,9,17,25,33 above, and further in view of Wang et al. (6167243).

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As per **claims 6-8,14-16,22-24,30-32,38-40**, Kondo discloses applicant's claims 1,9,17,25,33, but does not specify that the signal sizes received from each base station will be combined when generating the resulting signal.

Molnar teaches that diversity reception may involve combining (adding) two received signals (each signal comprising signal sizes) based on a mean of the first and second signal sizes (Col 4 lines 4-60, Fig. 2). Molnar teaches that the signal combination can reduce the effects of signal fading (Col 1 lines 10-30). It would have been obvious to one of ordinary skill in the art at the time of this application that the signals could be combined for the advantage of reducing the effects of signal fading.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Jamal whose telephone number is 703-305-3433. The examiner can normally be reached on M-F 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis A Kuntz can be reached on 703-305-4708. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9315 for After Final communications.

AJ  
March 14, 2005

  
CURTIS KUNTZ  
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